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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/820,782	03/30/2001	Keunsuk P. Chang	361752000400	3559

25227 7590 05/21/2003

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EXAMINER

JACKSON, MONIQUE R

ART UNIT

PAPER NUMBER

1773

DATE MAILED: 05/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/820,782

Applicant(s)

CHANG ET AL.

Examiner

Monique R Jackson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) 35 and 36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2-3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, Claims 1-34, in Paper No. 6 is acknowledged.
2. Claims 35 and 36 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 6.

Specification

3. The disclosure is objected to because of the following informalities: the specification recites "extruding a metal layer" and further recites that the metal layer is formed by vapor deposition. Given that "extrusion is known in the art as a method of processing polymer materials, the Examiner believes the term "extruding a metal layer" is an error and should recite "depositing a metal layer" or similar term.

Appropriate correction is required.

Claim Objections

4. Claim 32 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.
5. Claim 18 is objected to because of the following informalities: "55-120" in line 3 should probably be "58-120" based on the description in the specification. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1-14 and 23-34 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. The incorporation of a wax additive is critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). As noted in the "Field of Invention" section on page 1, in the paragraph at page 3, line 16, and the examples, the invention is directed to a metal adhesion layer comprising a polymer wax additive.

8. Claims 1-33 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 1 recites the limitation "wherein the laminate film has metal adhesion of 2 or more" however the claim does not provided any units for this value or a standard method by which is this experimental value is obtained. The specification recites a method by which "metal adhesion" is measured wherein numerical values are assigned based on the qualitative rating of the amount of metal removed after a 1-inch wide 610 tape is removed from the metallized surface. However, it appears that the recited testing method was not conducted according to a standard method recognized in the art. Further it is noted that other testing conditions that are not recited have an effect on the amount of metal removed, such as the rate or force at which the tape is removed, and the angle or

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direction utilized to remove the tape at which the test was conducted. Hence, the specification does not describe the testing method in sufficient detail to allow one having ordinary skill in the art to make the invention such that it has a "metal adhesion" as instantly claimed.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites the limitation "wherein the laminate film has metal adhesion of 2 or more" however the recitation of an experimental value without providing any units for the value or a clear method by which is the experimental value is obtained is indefinite given that one having ordinary skill in the art would not be reasonably apprised of the scope of the claimed invention and could not interpret the metes and bounds of the claim so as to understand how to avoid infringement.

11. Claims 23-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 23-24 recite the limitation "wherein said heat-sealable layer" in line 1 and similarly Claims 25-27 recite the limitation "wherein said non-sealable, winding layer" in line. However, there is insufficient antecedent basis for these limitations in the claims given that the parent claim 1 does not recite a heat-sealable or non-sealable layer.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 1-14 and 23-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Kurokawa et al (USPN 5,698,317.) Kurokawa et al teach a polyolefin-based laminate comprising a polyolefin base layer, preferably polypropylene, a discharge-treated polyolefin mixed resin layer containing crystalline polypropylene and at least one of a petroleum or terpene resin additive in an amount of 5-30wt%, a vapor deposited metal layer formed on the discharge-treated polyolefin mixed resin layer, and a heat-seal layer formed on the surface of the polyolefin base layer opposite the surface of the polyolefin mixed resin layer; wherein the petroleum and/or terpene resin additive is utilized to improve adhesion to the vapor deposited metal layer (Abstract; Col. 2, lines 34-42; Col. 3, lines 6-67.) Kurokawa et al also teach that the heat seal layer is preferably a ternary copolymer of ethylene/propylene/butene with a thickness of 0.5-5um and may contain anti-blocking agents such as spherical silica or silicone resin particles in an amount of 0.05-5wt%; the polyolefin base has a thickness of 10-20um; the polyolefin mixed resin layer may further comprise lubricants or anti-blocking agents and has a thickness of 0.1-5.0um; the metal layer is preferably Al, Zn or Ni and has a thickness of the metal layer is 5-60nm; the (Col. 2, lines 31-66; Col. 3, Col. 4, lines 10-20 and lines 40-55; Col. 5, lines 1-2.) Kurokawa et al further teach that an additional polyolefin resin layer can be formed between the polyolefin base and the heat seal layer wherein the surface of the additional polyolefin resin layer is corona discharged treated and the additional polyolefin resin layer may be a layer of block copolymers of polypropylene with one or more other polymers are roughened and matted, or polypropylene containing 0.05-5% of an anti-blocking agent such as spherical silica or silicone

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resin (Col. 5, lines 1-26.) With respect to the "metal adhesion" and oxygen transmission rate, the Examiner takes the position that the invention taught by Kurokawa et al, which has the same material layers with the same layer thickness and is produced by the same method, would inherently exhibit the same metal adhesion and oxygen transmission rate as instantly claimed.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 15-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurokawa et al in view of Migliorini et al (USPN 5,194,318) or Kemp-Patchett et al (USPN 5,527,608) or Davis et al (USPN 6,033,514.) The teachings of Kurokawa et al are discussed above. Though Kurokawa et al teach that the mixed resin layer may further comprise lubricants in appropriate amounts, Kurokawa et al does not specifically teach the waxes as instantly claimed. However, polymer waxes are an obvious species of lubricants utilized in packaging films wherein Migliorini et al or Kemp-Patchett et al both teach that a minor proportion of about 10wt% of microcrystalline wax can be provided in a polyolefin metallizable layer of a multilayer packaging film (Migliorini et al: Col. 2, lines 1-3; Kemp-Patchett et al: Col. 6, lines 55-63.) Davis et al also teach the use of various waxes in a polyolefin composite film wherein the wax is present in the outer layer through migration, wherein the wax may include natural or synthetic waxes, paraffin wax, microcrystalline wax, vegetable wax, polyethylene wax, with molecular weights and melting points similar to those instantly claimed wherein the amount of wax is a

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result-effective variable providing a beneficial reduction of oxygen transmission rate (Col. 3, lines 20-58; Col. 5, lines 45-51; Col. 6, lines 1-10.) Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to include a polymer wax as the lubricant in the mixed resin layer taught by Kurokawa, and further one skilled in the art at the time of the invention would have been motivated to utilizing any polymer wax conventionally utilized in the art, such as those taught by Migliorini or Kemp-Patchett or Davis, optimizing the amount of the wax based on the desired oxygen transmission rate or film properties for a particular end use.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R Jackson whose telephone number is 703-308-0428. The examiner can normally be reached on Mondays-Thursdays, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul J Thibodeau can be reached on 703-308-2367. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Monique R. Jackson
Patent Examiner
Technology Center 1700
May 19, 2003